8. Nastya

Program Name: Nastya.java **Input File: nastya.dat**

After seeing the simple box pattern Fengge did in class, Nastya, not to be outdone, decides to do a one-up on him and create something a bit more elaborate, according to these rules.

Her pattern will be rectangular, simulating a wall of a house, with three values input, A, B, and C. The value A represents the thickness of the wall, B the number of columns between the left and right walls,and C the height of the wall. The walls will be indicated by the letters I and X. For walls with a thickness of 2 or less, Is will be used, otherwise Xs will be used for interior columns between the two Is. Cross letters begin inside each wall, starting at the top of the left wall, with Rs that descend diagonally until they hit the opposite wall, or the floor. Likewise, Ls will start at the top of the right side wall and descend diagonally until they hit the opposite wall of the floor. Anytime an R and L occupy the same cell, and S will be used instead. If an R or L reaches a wall, or the bottom row, then that becomes the last row for the cross letters.

For the input values A = 2, B = 4, and C = 5, the wall pattern is as follows:

```
IIR  LII
II IL II
IIL  RLL
II    II
```

The data set 3 10 8 results in:

```
IXIR        LIXI
IXI R      L IXI
IXI  R    L  IXI
IXI   R  L   IXI
IXI    RL    IXI
IXI   L  R   IXI
IXI  L    R  IXI
```

The input values 1 5 6 produce:

```
IR   LI
I R L I
I  S  I
I L R I
IL   RI
I     I
```

Input: Several data sets, each set on one line, as described above.

Output: A wall cross-section pattern, also as described above. Each pattern will be followed by a blank line.

Sample input:

```
2 4 5
3 10 8
1 5 6
```

Sample output: (see above)